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EXAMINER

CHAU, COREY P

ART UNIT PAPER NUMBER

2644

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/867,736	YANG ET AL.	
	Examiner	Art Unit	
	Corey P Chau	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plurality of decoders must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Figures 1A-B and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected

Art Unit: 2644

drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 17-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The application recites in Claim 17, "a plurality of decoders"; however it is unclear to the examiner how the plurality of decoders would operate together. Claims 18-27 depends on Claim 17 and are rejected for the same reasons stated above.

6. Claim 1 recites the limitation "the input signal" in line 9. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction are require here and through out the entire application.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1 and 5 rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No 20040120537 to Takei.

9. Regarding Claim 1, Takei discloses an audio post processing method comprising the following sequenced steps: matrix mixing an audio signal, then decoding a surround channel of the audio signal (i.e. two source signals of an L total signal (Lt) and R total signal (Rt) are supplied to an adaptive matrix circuit 1 to be decoded into four channel signals of a front left channel (Lch) signal, center channel (Cch) signal, front right channel (Rch) signal, and a rear surround channel (Sch) signal. This meets the claim limitation matrix mixing an audio signal, then decoding a surround channel of the audio signal because the decoder performs matrix mixing the audio signal), then directing a low frequency input channel of the signal to a low frequency effect compatible speaker (i.e. any one of the channels, Lch, Rch, Cch, Sch, can be the low frequency input channel because it contain low frequency and is directed to a speaker, which is compatible of producing the low frequency), transmitting an ambient noise containing channel of the signal to a speaker system operable to create a three dimensional effect

(i.e. Lch, Rch, SLch, SRch)(Fig. 2; page 1, paragraph 0001), then center channel equalizing the input signal (2)(Fig. 2).

10. Regarding Claim 5, Takei discloses driving a plurality of loudspeakers positioned towards the rear and to the sides of the listener with a surround channel of the signal (SLch,SRch)(Fig. 2; page 1, paragraph 0001).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 3, 4, 6-9 17-18, 20, 22-24, 26, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6167140 to Watanabe in view of U.S. Patent No. 6760448 to Gundry.

13. Regarding Claim 1, Watanabe discloses an audio post processing method comprising the following sequenced steps: decoding (2) a surround channel of the audio signal (i.e. a decoder decoding input signals in which multichannel signals are encoded to output multichannel signals) (Figs. 3 and 11-13), then directing a low frequency input channel of the signal to a low frequency effect compatible speaker (Figs. 3 and 11-13, reference LF), transmitting an ambient noise containing channel of the signal to a speaker system operable to create a three dimensional effect (Figs. 3 and 11-13,

Art Unit: 2644

references 6L, 6R, and surround speaker), then center channel equalizing the input signal (i.e. the gain corrector 7, equalize the gain of the amplifier 4A for the L channel with the gain of the amplifier 4B for the C channel, therefore meets center channel equalizing)(column 8, lines 23-43). Watanabe discloses a decoder, wherein the decoder separates the inputted signals into four signals, but only generally; no specific hardware or software is taught. Therefore it would have been obvious to one having ordinary skill in the art to seek known methods of decoding. Gundry for example discloses a matrix decoding process, wherein the matrix decoding process sum a left and right inputs to produce an center signal C and subtract the left and right inputs to produce a surround signal (i.e. matrix mixing an audio signal) (Fig. 5; column 7, lines 25-60). It would have been obvious to one having ordinary skill in the to employ any known method to decode an audio signal, such as that of Gundry. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Watanabe with the teaching of Gundry to utilize the martrix decoding process in order to produce multichannel signals from the input signals.

14. Regarding Claim 3, Watanabe as modified discloses matrix mixing the signal by applying a Prologic algorithm (Gundry, Fig. 5; column 7, lines 25-60).

15. Regarding Claim 4, Watanabe as modified discloses driving a centrally-located loudspeaker with a center channel of the signal (Figs. 3 and 11-13, reference 11).

16. Regarding Claim 6, Watanabe as modified discloses using a bass channel of the signal to drive a low frequency effect loudspeaker (i.e. speaker 6L or speaker 6R can be

a low frequency effect loudspeaker because it is capable to product low frequency audio signal) (Figs. 3 and 11-13).

17. Regarding Claim 7, Watanabe as modified discloses transmitting ambient noise to the plurality loudspeakers positioned towards the rear and the sides of the listener (6L,6R,12).

18. Regarding Claim 8, Watanabe as modified discloses transmitting ambient noise to a loudspeaker positioned towards the front of a listener to create an encompassed impression therein (6L,6R,11).

19. Regarding Claim 9, Watanabe as modified discloses inputting a listener preference and available equipment status into a player console, wherein the listener preference reflects a desired post processing effect (column 5, lines 12-24).

20. Regarding Claim 17, as best understood with regards to the 112, 2nd problem as mention above, Watanabe discloses an audio post-processing system, comprising: a plurality of decoders operable to perform the following sequenced steps: Watanabe discloses an audio post processing method comprising the following sequenced steps: decoding (2) a surround channel of the audio signal (i.e. a decoder decoding input signals in which multichannel signals are encoded to output multichannel signals) (Figs. 3 and 11-13), then directing a low frequency input channel of the signal to a low frequency effect compatible speaker (Figs. 3 and 11-13, reference LF), transmitting an ambient noise containing channel of the signal to a speaker system operable to create a three dimensional effect (Figs. 3 and 11-13, references 6L, 6R, and surround speaker), then center channel equalizing the input signal (i.e. the gain corrector 7, equalize the

Art Unit: 2644

gain of the amplifier 4A for the L channel with the gain of the amplifier 4B for the C channel, therefore meets center channel equalizing)(column 8, lines 23-43); a player console operable to receive system listener input (column 5, lines 12-24); a signal source producing a signal comprised of a plurality of channels, each channel operable to drive a loudspeaker positioned at one or more of a plurality of destinations (Figs. 3 and 11-13). Watanabe discloses a decoder, wherein the decoder separates the inputted signals into four signals, but only generally; no specific hardware or software is taught. Therefore it would have been obvious to one having ordinary skill in the art to seek known methods of decoding. Gundry for example discloses a matrix decoding process, wherein the matrix decoding process sum a left and right inputs to produce an center signal C and subtract the left and right inputs to produce a surround signal (i.e. matrix mixing an audio signal) (Fig. 5; column 7, lines 25-60). It would have been obvious to one having ordinary skill in the to employ any known method to decode an audio signal, such as that of Gundry. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Watanabe with the teaching of Gundry to utilize the martrix decoding process in order to produce multichannel signals from the input signals.

21. Regarding Claim 18, Watanabe as modified discloses output amplifiers operable to drive a loudspeaker positioned at one or more of the following positions relative a listener: front, right, left and rear (4A,4B,4C,4D).

22. Regarding Claim 20, Watanabe as modified discloses said listener input reflects listener preference and the disposition of available equipment (Figs. 3 and 11-13; column 5, lines 12-24).

23. Regarding Claim 21, Watanabe as modified discloses surround sound channel output amplifiers (4D) driving loudspeakers positioned towards the rear (12) and toward the sides of the listener (6R).

24. Regarding Claim 22, Watanabe as modified discloses a center channel equalizer output amplifier (4B) driving a loudspeaker positioned towards the front and center of the listener (Figs. 3 and 11-13).

25. Regarding Claim 23, Watanabe as modified discloses a bass channel amplifier (4B, 4D) driving a low frequency effect loudspeaker (i.e. speaker 6L or speaker 6R can be a low frequency effect loudspeaker because it is capable to product low frequency audio signal) (Figs. 3 and 11-13).

26. Regarding Claim 24, Watanabe as modified discloses said decoders utilize DCS techniques said to direct ambient noise channels of the audio signal to loudspeakers positioned towards the rear of the listener (Figs. 3 and 11-13).

27. Regarding Claim 26, Watanabe as modified discloses said decoders create a center channel of the audio signal for driving a loudspeaker that is centrally located with respect to the listener (Figs. 3 and 11-13, references 3C and 11).

28. Regarding Claim 29, Watanabe discloses an audio post processing method comprising performing a **sequence selected from the group** consisting of: a) decoding (2) a surround channel of the signal (i.e. a decoder decoding input signals in which

Art Unit: 2644

multichannel signals are encoded to output multichannel signals) (Figs. 3 and 11-13)

Watanabe discloses a decoder, wherein the decoder separates the inputted signals into four signals, but only generally; no specific hardware or software is taught. Therefore it would have been obvious to one having ordinary skill in the art to seek known methods of decoding. Gundry for example discloses a matrix decoding process, wherein the matrix decoding process sum a left and right inputs to produce an center signal C and subtract the left and right inputs to produce a surround signal (i.e. matrix mixing an audio signal) (Fig. 5; column 7, lines 25-60). It would have been obvious to one having ordinary skill in the to employ any known method to decode an audio signal, such as that of Gundry. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Watanabe with the teaching of Gundry to utilize the martrix decoding process in order to produce multichannel signals from the input signals; b) matrix mixing the signal, decoding the surround channel, and directing a low frequency input channel of the signal to a low frequency effect compatible speaker; c) matrix mixing the signal and directing the low frequency input channel of the signal to the low frequency effect compatible speaker; d) matrix mixing the signal, decoding the surround channel, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, and transmitting an ambient noise containing channel of the signal to a speaker system operable to create a three dimensional effect; e) matrix mixing the signal, decoding the surround channel, and transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect; f) matrix mixing the signal, directing the

low frequency input channel of the signal to the low frequency effect compatible speaker, and transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect; g) matrix mixing the signal and transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect; h) matrix mixing the signal, decoding the surround channel, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect, and center channel equalizing the input signal; i) matrix mixing the signal, decoding the surround channel, and center channel equalizing the input signal; j) matrix mixing the signal, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, and center channel equalizing the input signal; k) matrix mixing the audio signal, transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect, and center channel equalizing the input signal; l) matrix mixing the audio signal, decoding the surround channel of the signal, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, and center channel equalizing the input signal; m) matrix mixing the audio signal, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect, and center channel equalizing the input signal; n) matrix mixing and center channel equalizing the signal; wherein matrix mixing always precedes

decoding the surround channel, directing the low frequency input channel, transmitting the ambient noise containing channel, and center channel equalizing the signal, wherein decoding the surround channel of the audio signal always precedes directing the low frequency input channel, transmitting the ambient noise containing channel, and center channel equalizing the signal, wherein directing the low frequency input channel always precedes transmitting the ambient noise containing channel, and center channel equalizing the signal, wherein transmitting the ambient noise containing channel always precedes center channel equalizing the signal.

29. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6167140 to Watanabe in view of U.S. Patent No. 6760448 to Gundry as applied to claims 1, 3, 4, 6-9 17-18, 20, 22-24, 26, and 29 above, and further in view of U.S. Patent No. 6442278 to Vaudrey et al. (hereafter as Vaudrey).

30. Regarding Claim 2, Watanabe as modified does not expressly disclose matrix mixing the signal by applying a downmixing algorithm. However it would have been obvious to one having ordinary skill in the art to provide such a downmixing algorithm in order to create a three dimensional effect even though there are less speakers than there are channels, as taught by Vaudrey (Figs. 5, 6, 9, and 9).

31. Claims 10-16 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6167140 to Watanabe in view of U.S. Patent No. 6760448 to Gundry and further in view of U.S. Patent No. 6766028 to Dickens.

Art Unit: 2644

32. Regarding Claim 10, Watanabe discloses an audio post processing method comprising the following ordered steps: decoding (2) a surround channel of the audio signal (i.e. a decoder decoding input signals in which multichannel signals are encoded to output multichannel signals) (Figs. 3 and 11-13), then directing low frequency input channels to a bass compatible speaker (Figs. 3 and 11-13, reference LF). Watanabe discloses a decoder, wherein the decoder separates the inputted signals into four signals, but only generally; no specific hardware or software is taught. Therefore it would have been obvious to one having ordinary skill in the art to seek known methods of decoding. Gundry for example discloses a matrix decoding process, wherein the matrix decoding process sum a left and right inputs to produce an center signal C and subtract the left and right inputs to produce a surround signal (i.e. matrix mixing an audio signal) (Fig. 5; column 7, lines 25-60). It would have been obvious to one having ordinary skill in the to employ any known method to decode an audio signal, such as that of Gundry. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Watanabe with the teaching of Gundry to utilize the martrix decoding process in order to produce multichannel signals from the input signals. Watanabe as modified does not expressly discloses applying a headphone algorithm. However it would have been obvious to one having ordinary skill in the art to provide such a headphone algorithm in order allow the user to connect a headphone to the system and still create a three dimensional effect, as taught by Dickens (Figs. 3 and 4);

33. All elements of Claim 11 are comprehended by Claim 10. Claim 11 is rejected for the reasons stated above apropos to Claim 10.

34. Regarding Claim 12, Watanabe as modified discloses matrix mixing the signal by applying a Prologic algorithm (Gundry, Fig. 5; column 7, lines 25-60).

35. Regarding Claim 13, Watanabe as modified discloses driving the headphone speaker with a center channel of the signal (Dickens, Figs. 3 and 4).

36. Regarding Claim 14, Watanabe as modified discloses driving the headphone speaker with a surround channel of the signal (Dickens, Figs. 3 and 4).

37. Regarding Claim 15, Watanabe as modified discloses transmitting ambient noise to the headphone speaker (Dickens, Figs. 3 and 4).

38. Regarding Claim 16, Watanabe as modified discloses inputting a listener preference and available equipment status into a player console, wherein the listener preference reflects a desired post processing effect (column 5, lines 12-24).

39. Regarding Claim 28, Watanabe discloses an audio post-processing system, comprising: a plurality of decoders operable to perform the following sequenced steps: decoding (2) a surround channel of the audio signal (i.e. a decoder decoding input signals in which multichannel signals are encoded to output multichannel signals) (Figs. 3 and 11-13), then directing low frequency input channels to a bass compatible speaker (Figs. 3 and 11-13, reference LF); a player console operable to receive system listener input (column 5, lines 12-24); a signal source producing a signal comprised of a plurality of channels, each channel operable to drive a loudspeaker positioned at one or more of a plurality of destinations (Figs. 3 and 11-13). Watanabe discloses a decoder, wherein

Art Unit: 2644

the decoder separates the inputted signals into four signals, but only generally; no specific hardware or software is taught. Therefore it would have been obvious to one having ordinary skill in the art to seek known methods of decoding. Gundry for example discloses a matrix decoding process, wherein the matrix decoding process sum a left and right inputs to produce an center signal C and subtract the left and right inputs to produce a surround signal (i.e. matrix mixing an audio signal) (Fig. 5; column 7, lines 25-60). It would have been obvious to one having ordinary skill in the art to employ any known method to decode an audio signal, such as that of Gundry. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Watanabe with the teaching of Gundry to utilize the matrix decoding process in order to produce multichannel signals from the input signals. Watanabe as modified does not expressly disclose applying a headphone algorithm. However it would have been obvious to one having ordinary skill in the art to provide such a headphone algorithm in order allow the user to connect a headphone to the system and still create a three dimensional effect, as taught by Dickens (Figs. 3 and 4);

40. Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6167140 to Watanabe in view of U.S. Patent No. 6760448 to Gundry and further in view of U.S. Patent No. 6766028 to Dickens.

41. Regarding Claim 19, Watanabe as modified discloses output amplifiers (4A-D), but does not expressly disclose a headphone speaker. However it would have been obvious to one having ordinary skill in the art to provide a headphone algorithm in order

Art Unit: 2644

allow the user to connect a headphone to the system and still create a three dimensional effect, as taught by Dickens (i.e. the amplifiers are then operable to drive headphone speaker)(Figs. 3 and 4);

42. Regarding Claim 25, Watanabe as modified does not expressly discloses said decoders utilize a VES algorithm to direct an ambient noise channel of the audio signal to loudspeakers positioned towards the front of the listener. However it would have been obvious to one having ordinary skill in the art to provide such a VES algorithm in order to produce a three dimensional effect when there are less speakers than input channels, as Dickens (Figs. 3 and 4).

43. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6167140 to Watanabe in view of U.S. Patent No. 6760448 to Gundry and further in view of U.S. Patent Application Publication No. 20040120537 to Takei.

44. Regarding Claim 27, Watanabe as modified discloses said decoders create a surround sound channel for ambient noise, but does not expressly discloses two loudspeakers that are located to the right and left behind the listener. However it would have been obvious to one having ordinary skill in the art to modify the surround signal (3S) of Watanabe to produce a surround left channel and a surround right channel by utilize a stereo means, as taught by Takei (Fig. 2, reference 4; page 3, paragraph 0053).

Conclusion

45. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey P Chau whose telephone number is (571)272-7514. The examiner can normally be reached on Monday - Friday 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Sinh can be reached on (571)272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 18, 2005


XU MEI
PRIMARY EXAMINER